REMARKS

Claims 1 – 4, 6 – 10, 16 – 19 and 21 – 34 are pending in this application.

Claims 1 – 4, 6 – 10, and 27 – 34 have been rejected.

Claims 16 – 19 and 21 – 26 have been allowed.

Entry of Response

This response, after a rejection on the merits, made final, mailed July 9, 2008, is submitted along with a Request for Continued Examination (RCE) under the provisions of 37 CFR § 1.114 and, hence, should be entered and considered. Entry of this amendment and consideration of these remarks is respectfully requested.

Response to Comments from the Office Action

The rejections of claims 1 – 4, 6 – 10, and 27 – 34 over U.S. Patent Publication No. 2002/0087091 ("Koyrakh '091") are respectfully traversed and will be discussed in detail in the following sections. However, in the Response to Arguments section, the Office Action makes several assertions that will be addressed here.

The Applicant respectfully submits that the Office Action misapplies the teaching of Koyrakh '091. The Office Action states that "after finding a plurality of beats (i.e., first consecutive events) that are not normal, the controller will identify 6 beats (i.e., first selected events) subsequent to any not normal beats that have RR-intervals greater than 600 ms (i.e., second characteristics)." (emphasis added) The Applicant respectfully submits that this statement reads more into Koyrakh '091 than is disclosed in at least two important respects. First, Koyrakh '091 does not show, disclose or suggest that the plurality of beats that are not normal need be consecutive, as applied to the phrase "first consecutive events" from claims 1, 27 and 31. While Koyrakh '091 discloses in paragraph [0046] that the number of not normal beats must occur within a "predetermined time period" (line 7), this disclosure does not show, disclose or suggest that the not-normal beats are consecutive, merely that they must occur within a particular time period. Nor does Koyrakh '091 show, disclose or suggest that the time period is set

such that the not-normal beats must occur consecutively. Thus, it is respectfully submitted that the characterization of the plurality of not-normal beats as being consecutive is not supported by the disclosure of Koyrakh '091.

Second, Koyrakh '091 does not show, disclose or suggest that the beats with second characteristics are taken subsequent to the not-normal beats. Koyrak '091 discloses in paragraph [0047] that "if the beat is determined to be a normal beat ... a determination is made as to whether six beats have been collected ... and the process continues until six normal beats have been collected" (lines 1 – 5). In other words, Koyrakh '091 specifically discloses that if, when the normal beat occurs, there have not yet been six beats collected that the process continues until those beats have been collected. The inherent corollary to that statement is that if six beats have already been collected prior to the normal beat that no more are collected, and the process continues with those six collected beats. As such, Koyrakh '091 specifically discloses that at least some, and in some cases all of the collected beats are not collected subsequent to the normal beats, but rather are collected before the normal beat. Koyrakh '091 does not show, disclose or suggest collecting six beats subsequent to the first consecutive events, instead specifically disclosing that the first events need not be consecutive at all, and that the collected beats need not be subsequent to the first events. Thus, Koyrakh '091 does not show, disclose or suggest identifying a predetermined number of events of a plurality of events subsequent to the first consecutive events having second characteristics, as recited in claims 1, 27 and 31.

Rejections Under 35 U.S.C. § 102

Claims 1 – 3, 6 – 9, 27 – 29 and 31 – 33 have been rejected under 35 USC § 102(b) as being anticipated by U.S. Patent Publication No. 2002/0087091 ("Koyrakh '091"). These rejections are respectfully traversed.

The above discussion relating to the assertions of Koyrakh '091 from the Office Action is incorporated in its entirety.

Koyrakh '091 discloses an automated template generation algorithm for an implantable device. An implantable medical device has a coronary sinus lead and a right ventricular lead have electrodes that may be used to detect electrical activity in the ventricles (paragraphs [0021 – 0022]). Electronics in the implantable medical device control sensing and pacing functions (paragraphs [0024] – [0029]). The electronics can, based on sensed information, develop a template for operation of the implantable medical device (paragraph [0045] – [0047]). Based on the R-R interval, the electronics determine whether a heartbeat is normal – if the interval is less than 600ms, or it was a paced beat, the beat is not normal, while if the interval is greater than 600ms, the beat is normal (paragraph [0046]). The process continues until six normal beats have been collected (paragraph [0047]). After six beats have been collected, five cross-matches are established, and determinations are made as to whether or not the beats of each cross-match are sufficiently similar that they are within a certain threshold (paragraph [0047]). If four or more of the cross-matches are sufficiently similar, the four or more cross-matches are utilized as the template (paragraph [0047]).

But Koyrakh '091 does not show, disclose or suggest determining whether first consecutive events have first characteristics, and then identifying, as first selected events, a predetermined number of events subsequent to the first consecutive events that have second characteristics, and generating the template only from the first selected events, wherein the first characteristics are ventricular sensed events having R-R intervals greater than a threshold interval. In other words, the template is formed from events that occur after the first characteristics are verified, and the events that contribute to the first characteristics are not utilized. Koyrakh '091 specifically utilizes all sensed events.

By contrast, claims 1, 27 and 31 recite sensing a plurality of events, determining whether there are first consecutive events of the plurality of events having first characteristics, and identifying a predetermined number of events of the plurality of events subsequent to the first consecutive events having second characteristics as first selected events (claim 1, lines 3 – 8; claim 27, lines 2 – 7; claim 31, line 3 – 8). A template is generated only from the first selected events (claim 1, line 9; claim 27, line 8;

claim 31, line 9). By contrast, Koyrakh '091 specifically discloses utilizing all sensed events that correspond to "normal" beats, not only first selected events. Further, Koyrakh '091 does not show, disclose or suggest identifying a predetermined number of events of a plurality of events subsequent to the first consecutive events having second characteristics.

Koyrakh '091 does not show, disclose or suggest all of the subject matter of claims 1, 27 and 31. Thus, it is respectfully submitted that the rejection of claims 1, 27 and 31 under 35 USC § 102(b) as being anticipated by Koyrakh '091 is improper and should be withdrawn.

Claims 2, 3 and 6 – 9 depend from claim 1, claims 28 and 29 depend from claim 27, and claims 32 and 33 depend from claim 31, and as such incorporate all of the subject matter of the claims from which they depend. In addition, claims 2, 3, 6 – 9, 28, 29, 32 and 33 recite additional patentable subject matter. Because the rejection of claims 1, 27 and 31 is improper, and because claims 2, 3, 6 – 9, 28, 29, 32 and 33 recite additional patentable subject matter, it is respectfully submitted that the rejection of claims 2, 3, 6 – 9, 28, 29, 32 and 33 under 35 USC § 102(b) as being anticipated by Koyrakh '091 is improper for the same reasons and should be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 3, 4, 29, 30, 33 and 34 have been rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0087091 ("Koyrakh '091"). These rejections are respectfully traversed.

The discussion of Koyrakh '091 and of claims 1, 27 and 31 above is incorporated in its entirety.

Claims 3 and 4 depend from claim 1, claims 29 and 30 depend from claim 27, and claims 33 and 34 depend from claim 31, and as such incorporate all of the subject matter of the claims from which they depend. In addition, claims 3, 4, 29, 30, 33 and 34 recite additional patentable subject matter. Because Koyrakh '091 does not show, disclose or suggest at least one essential element of claims 1, 27 and 31, claims 1, 27 and 31 should

not be rejectable under 35 USC § 103(a) as being unpatentable over Koyrakh '091. Thus, because claims 3, 4, 29, 30, 33 and 34 incorporate all of the subject matter of claims 1, 27 and 31, and because claims 3, 4, 29, 30, 33 and 34 recite additional patentable subject matter, it is respectfully submitted that the rejection of claims 3, 4, 29, 30, 33 and 34 under 35 USC § 103(a) as being unpatentable over Koyrakh '091 is improper and should be withdrawn.

Allowable Subject Matter

Applicant notes with appreciation the indication of allowable subject matter in claims 16 – 19 and 21 – 26.

Summary

In view of the arguments presented, claims 1 – 4, 6 – 10, 16 – 19 and 21 – 34 should be allowable. This application should be in condition for allowance and a notice to that effect is earnestly solicited.

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